

APPENDIX A

FEDERAL COORDINATION AND PLANNING

BASIS FOR FEDERAL COORDINATION PROCESS

In 1963, Congress and the Executive Office of the President expressed concern about the adequacy of coordination of federal meteorological activities. In response, Congress directed in Section 304 of Public Law 87-843--the Appropriations Act for State, Justice, Commerce, and Related Agencies--that the Bureau of the Budget prepare an annual horizontal budget for all meteorological programs in the federal agencies.

The Bureau of the Budget (now the Office of Management and Budget) issued a report entitled "Survey of Federal Meteorological Activities" (1963). The report described each agency's program in some detail, particularly its operational services, and detailed the relationship between the programs of the various agencies. The report revealed close cooperation but little evidence of systematic coordination. Based on this study, the Bureau of the Budget issued a set of ground rules to be followed in the coordination process. It established a permanent general philosophy for assignment and assessment of agency roles in the field of meteorology and set certain goals to be achieved by the coordination process. The Bureau of the Budget tasked the Department of Commerce (DOC) to establish the coordinating mechanism in concert with the other federal agencies. It also reaffirmed the concept of having a central agency--the DOC--responsible for providing common meteorological facilities and services and clarified the responsibilities of other agencies for providing meteorological services specific to their own needs.

The implementation of these directives by DOC led to the creation of the Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM) which operates with policy guidance from the Federal Committee for Meteorological Services and Supporting Research. The principal work in the coordination of meteorological activities and in the preparation and maintenance of federal plans is accomplished by the OFCM staff with the advice and assistance of the Interdepartmental Committee for Meteorological Services and Supporting Research, and over 30 program councils, committees, and working groups.

MISSION AND STAFFING OF THE OFFICE OF THE FEDERAL COORDINATOR FOR METEOROLOGY

The mission of the OFCM is to ensure the effective use of federal meteorological resources by leading the systematic coordination of operational weather requirements and services, and supporting research, among the federal agencies. To discharge its mission, OFCM has meshed its objectives with the objectives of the agencies that provide the services and perform the research.

These objectives include:

- Documenting agency programs and activities in a series of national plans and reports that enable agencies to revise/adjust their individual ongoing programs and provide a means for communicating new ideas and approaches to fulfill requirements.

- Providing structure and programs to promote continuity in the development and coordination of interagency plans and procedures for meteorological services and support research activities.
- Preparing analyses, summaries, or evaluations of agency meteorological programs and plans that provide a factual basis for the Executive and Legislative branches to make appropriate decisions related to the allocation of funds.
- Reviewing federal weather programs and federal requirements for meteorological services and supporting research. This review may suggest additions or revisions to current or proposed programs, or identify opportunities for improved efficiency, reliability, or cost avoidance through coordinated actions or integrated programs.

DOC currently has ten positions assigned to OFCM. DOC also provides administrative support to OFCM and approximately one-half of OFCM's annual operating budget. The Department of Defense (DOD) currently provides two senior staff officers--one Air Force and one Navy--and contributes approximately one-fourth of the annual operating budget. The Department of Transportation (DOT) Federal Aviation Administration (FAA) provides one professional staff member and also provides approximately one-fourth of the annual operating budget. These three agency representatives are designated Assistant Federal Coordinators for liaison to their respective agencies. In all, 13 meteorologists, oceanographers, physical scientists, and administrative and computer-support personnel are assigned to the OFCM staff.

FEDERAL COMMITTEE FOR METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH

<p>The Federal Committee for Meteorological Services and Supporting Research (FCMSSR), established in 1964, provides policy-level agency representation and guidance to the Federal Coordinator to address agency differences that arise during the coordination of meteorological activities and the preparation of federal plans. The Under Secretary of Commerce for Oceans and Atmosphere, who is also the</p>	<p>Administrator of the National Oceanic and Atmospheric Administration (NOAA), serves as the FCMSSR Chair.</p> <p>The 15 federal agencies that engage in meteorological activities or have a need for meteorological services are represented on FCMSSR. The FCMSSR membership includes: DOC, DOD, DOT, the Departments of Agriculture (USDA), Energy (DOE), Interior (DOI), and State (DOS), and the Environmental Protection Agency</p>	<p>(EPA), Federal Emergency Management Agency (FEMA), National Aeronautics and Space Administration (NASA), National Science Foundation (NSF), National Transportation Safety Board (NTSB), Nuclear Regulatory Commission (NRC), the Office of Science and Technology Policy (OSTP), and the Office of Management and Budget (OMB).</p>
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HIGHLIGHTS FOR FISCAL YEAR 1999 AND PLANS FOR FISCAL YEAR 2000

<p>YEAR 2000 (Y2K) COMPUTER PROBLEM</p> <p>The Office of the Federal Coordinator for Meteorology formed an interagency Special Action Group (SAG) to develop a test plan and conduct end-to-end testing for key Y2K failure dates. In addition to the SAG members (NOAA, Navy, Air Force, and FAA, Canada, various national laboratories, and members of the private sector also participated in the testing. Test systems performed correct date rollovers and continued normal operations; seeded and simulated operational data were correctly exchanged; models and applications ran as expected; and a number of Y2K rollover data sets were captured for subsequent use. All tests were successfully completed with no outstanding Y2K problems.</p> <p>NATURAL DISASTER REDUCTION</p> <p>On February 8-12, 1999, OFCM hosted the 53rd Interdepartmental Hurricane Conference (IHC) in Biloxi, Mississippi. The IHC objectives were to: (1) build the conference around the theme of natural disaster reduction; (2) increase federal agency participation; (3) include, for the first time, members of the user community, specifically, the emergency management community; and (4) create a forum (breakout sessions) for all conference participants to provide input/feedback into the</p>	<p>forecast and warning process. The conference was highly successful and the action items from the breakout sessions, which were structured after the natural disaster reduction theme, will help shape the hurricane forecast and warning agenda into the next century. Department of Energy (DOE), Department of the Interior United States Geological Service, Federal Highway Administration, and USDA were first-time participants; DOT FAA, FEMA, NASA, and United States Army Corps of Engineers expanded their participation; and 11 state and local emergency managers attended. Overall, conference attendance increased by 67 percent. The 54th IHC is scheduled for February 14-18, 2000, in Houston, Texas.</p> <p>The OFCM-sponsored Working Group for Post-Storm Data Acquisition coordinated data acquisition efforts following two natural disasters: Hurricane Georges and the Oklahoma City tornado outbreak. In support of the FEMA disaster response team tasking, storm surge data was collected for Florida, Alabama, and Mississippi following the landfall of Hurricane Georges. Then, in the aftermath of the May 3, 1999 Oklahoma City tornado outbreak, the working group provided for aerial photographic support from the Air Force's Civil Air Patrol. The Civil Air Patrol support, which was negotiated by the working group and documented in a</p>	<p>memorandum of understanding, has proven to be both timely and very cost effective.</p> <p>NOAA WEATHER RADIO</p> <p>OFCM worked with the Associate Administrator for the Office of Government wide Policy, General Services Administration (GSA) and his staff to require the installation of NOAA Weather Radios (NWR) in GSA-owned and leased buildings and vehicles. Plans are underway by GSA to include NWRs in GSA-owned facilities and to negotiate the inclusion of NWRs in leased facilities. GSA, in consultation with the National Weather Service and the National Partnership for Reinventing Government, is also negotiating with the automotive industry to include NWR as an optional feature for new cars and trucks.</p> <p>WEATHER INFORMATION FOR SURFACE TRANSPORTATION</p> <p>OFCM worked very closely with the FHWA Director of Operations and senior staff to discuss coordination of weather requirements for surface transportation. On behalf of the Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR), OFCM formed a Joint Action Group for Weather Information for Surface Transportation (WIST) to focus on</p>
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requirements for surface transportation. OFCM is planning a National Symposium for WIST on November 30 - December 2, 1999, that will include participants from federal agencies, state DOTs, urban transit authorities, trade associations, and the private sector to address needs and requirements for WIST. A draft consolidated requirements document for WIST will be completed by next summer.

REALIGNMENT OF COORDINATING INFRASTRUCTURE

During FY 1999, OFCM implemented a restructuring of the interagency coordinating process which reduces the number of groups and results in a better fit with agencies' perspectives and 21st Century focus areas and priorities. Under the restructuring, the FCMSSR and ICMSSR continue to provide policy and program guidance to OFCM on the most important cross-cutting issues and support for those initiatives where the end value has a clear societal benefit. The National Space Weather and National Aviation Weather Program Councils remain the same. The standing committees become: Environmental Services, Operations and Research Needs; Climate Monitoring and Services; Operational Processing Centers; Integrated Observing Systems; Environmental Information Systems and Communications; and Cooperative Research. Working Groups were reduced in number and cover broader areas; Joint Action Groups are established for limited periods of time to focus on specific issues. Implementation included identifying Chairpersons and members for OFCM's standing committees, Working Groups, and Joint Action Groups to get stronger participation from many agencies; preparing Terms of References for each group; identifying important issues; and arranging for meetings of the interagency groups.

The expanded responsibilities of the office related to the recently approved changes to OFCM's interagency coordinating structure include high pay-off areas such as natural disaster reduction, aviation safety, urban meteorology and air quality,

marine and ocean environmental services, weather support to surface transportation, climate services, the Year 2000 computer problem, radio spectrum policy, information dissemination technologies, integrated observing systems, and ensuring a long-term climate record.

AVIATION WEATHER SERVICES

The National Aviation Weather Program Strategic Plan presents a joint vision of what the National Aviation Weather System should be in the future. The goals of this vision include the evolution of a system where the number of aviation weather-related accidents is as close to zero as possible and where the number of delays caused by adverse weather is greatly reduced. The Strategic Plan addresses aviation weather planning and leveraging in terms of improving weather information, enhancing abilities of decision makers, improving institutional arrangements, and encouraging directed, disciplined research. During FY 1999, OFCM aviation groups prepared a National Aviation Weather Initiatives document which follows the Strategic Plan and defines agency roles in a series of service packages which address areas such as in-flight icing, turbulence, and microbursts and windshear. Private sector input to the Initiatives Document was obtained through an earlier OFCM-hosted meeting at which representatives from airlines and aviation associations commented on the initiatives and work being done to achieve a safer and more efficient National Airspace System. The Joint Action Group for Aviation Weather is now focusing on Tier III and Tier IV of the strategic planning process, which includes detailed design and cost consideration for each initiative. OFCM also continued efforts concerning volcanic ash and expects to publish *A National Framework for Volcanic Ash Hazards to Aviation* during FY 2000.

Since training is recognized as an important contributor to accident reduction, OFCM has continued its participation in the Cooperative Program for Operational Meteorology, Education and

Training (COMET) aviation training alliance with membership on the Aviation Steering Committee and the Joint Working Group. OFCM hosted a Joint Working Group meeting in November 1998. OFCM also participated in meetings of the Aviation Steering Committee in Boulder, Colorado, in January and June 1999, and will continue to participate during FY 2000. Primary sponsors for this activity include NASA, NWS, OFCM, FAA, and DOD.

SPACE WEATHER

Space weather refers to conditions on the sun and in the solar wind, magnetosphere, and ionosphere/thermosphere that can influence the performance and reliability of space-borne and ground-based technological systems, and endanger human life. Space weather storms can cause disruptions to satellites, communications, navigation, and electric power distribution grids. The vision of the National Space Weather Program, which is managed by an OFCM program council, is to create an active, synergistic, interagency, single-minded system to achieve the goal of timely, accurate, and reliable space environment observations, specifications, and forecasts in the next ten years. The National Space Weather Program Strategic Plan outlined a strategy to guide the planning and implementation of the National Space Weather Program. During FY 1999, OFCM space weather groups made substantial progress in preparing a second edition of the National Space Weather Program Implementation Plan. The Implementation Plan will be published in early FY 2000. It follows the Strategic Plan and provides detailed guidance and information on goals, timelines, research requirements, agency participation, and program management. During FY 1999, OFCM also worked closely with the Office of the National Security Space Architect (NSSA) to integrate the NSSA's space weather architecture and recommendations into the National Space Weather Program.

DEPARTMENT OF ENERGY'S METEOROLOGICAL COORDINATING COUNCIL

During FY 1999, the OFCM continued its close liaison with the DOE's Meteorological Coordinating Council (DMCC) whose mission is to coordinate meteorological support and atmospheric research to meet internal DOE objectives. OFCM representatives attended the October 1998 DMCC meeting and provided briefings on the OFCM organization and structure as well as projects of mutual interest. One such project is a new edition of the Transport and Diffusion Model Directory which was published during FY 1999.

NATIONAL RESEARCH COUNCIL/ NATIONAL ACADEMY OF SCIENCES

During FY 1999, OFCM continued its mutually beneficial interactions with the National Research Council/National Academy of Sciences. OFCM's activities in aviation weather have been influenced by the earlier NRC Committee on National Aviation Weather Services report *Aviation Weather Services - A Call for Federal Leadership and Action*. Staff Directors of the NRC National Weather Service Modernization Committee and Board on Atmospheric Sciences and Climate (BASC) attend OFCM's FCMSSR and ICMSSR meetings. At its December 1998 ICMSSR meeting, NRC reports and recommendations were given on the Future of the National Weather Service Cooperative Observer Network and The Atmospheric Sciences Entering the Twenty-First Century, including the recommendation that OFCM take a lead-

ership role in developing a strategic viewpoint to shape an increasingly distributed national structure for providing atmospheric information from a variety of governmental and private sector organizations. OFCM provided funding for and participated in the BASC Summer Study (June 29 - July 2, 1999, Woods Hole, Massachusetts) on transition from research to operations. OFCM and BASC have also arranged to hold a joint FCMSSR/BASC meeting. It will held October 25, 1999, in the National Academy of Sciences Building on Constitution Avenue, Washington, DC.

AMERICAN METEOROLOGICAL SOCIETY

During FY 1999, OFCM joined fourteen leading environmental science and service corporations in supporting undergraduate scholarships in the atmospheric and related oceanic and hydrologic sciences. The scholarships, awarded for the junior and senior years, are designed to encourage outstanding undergraduates to pursue careers in the fields covered by the awards. OFCM plans to continue this support in FY 2000. OFCM also supports AMS endeavors by participating in AMS conferences and workshops and other environmental science education and outreach programs.

PUBLICATIONS AND OFCM'S WEBSITE

The following publications were completed during FY 1999:

- *The Federal Plan for Meteorological Services and Supporting Research - Fiscal Year 1999*

- *53rd Interdepartmental Hurricane Conference (Minutes)*
- *National Hurricane Operations Plan*
- *National Winter Storms Operations Plan*
- *National Aviation Weather Initiatives*
- *Directory of Atmospheric Transport and Diffusion Consequence Assessment Models*

- *Federal Meteorological Handbook No. 12 (United States Meteorological Codes and Coding Practices)*

The following documents are planned for publication during FY 2000:

- *The Federal Plan for Meteorological Services and Supporting Research - Fiscal Year 2000*
- *54th Interdepartmental Hurricane Conference (Minutes)*
- *National Hurricane Operations Plan*
- *National Plan for Post-Storm Data Acquisition*
- *A National Framework for Volcanic Ash Hazards to Aviation*
- *The National Space Weather Program: Implementation Plan (2nd edition)*

During FY 1999, OFCM continued to make substantial progress on its use of the Internet. OFCM's domain name is *WWW.OFCM.GOV*. In addition to information about the office, OFCM has placed nineteen of its current publications on its website. OFCM will continue to make information available on the Internet during FY 2000.